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TOWNSEND and TOWNSEND and CREW LLP

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Attorney Docket No.: A5597/T41100 Client Reference No.: AMAT 005597/DD/HDP/CVD/JW TTC No. 16301-041100US

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Padmanabhan Krishnaraj et al.

Application No.: 10/057,014

Filed: January 24, 2002

For: IN SITU APPLICATION OF ETCH BACK FOR IMPROVED DEPOSITION

INTO HIGH-ASPECT-RATIO

FEATURES

Examiner: Unassigned

Art Unit:

1765

THIRD INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97 and

§1.98

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Padmanabhan Krishnaraj et al. Application No.: 10/057,014

Page 2

this statement.

As provided for by 37 CFR 1.97(g) and (h), no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information, and no inference should be made that the information and references cited are, or are considered to be material to patentability because they are in this statement. No inference should be made that the information and references cited are prior art merely because they are in

Applicant believes that <u>no fee is required</u> for submission of this statement, since it is being submitted prior to the first Office Action. However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

Patrick M. Boucher Reg. No. 44,037

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834

Tel: 303-571-4000 Fax: 303-571-4321

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(use as many sheets as necessary)

Sheet 1 of

	C mpl te if Known	
Application Number	10/057,014	
Filing Date	January 24, 2002	AUG TO
First Named Inventor	Krishnaraj, Padmanabh	an Go
Art Unit	1765	23
Examiner Name	Unassigned	1 000
Attorney Docket Number	A5597/T41100	0

U.S. PATENT DOCUMENTS						
Examiner	Cite No.1	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	AA	US-6,335,288 B1	01-01-2002	Kwan et al.		
	AB	US-6,136,685	10-24-2000	Narwanker et al.		
	AC	US-6,037,018	03-14-2000	Jang et al.		
	AD	US-5,571,576	11-05-1996	Qian et al.		
	AE	US-5,319,247	06-07-1994	Matsuura		
	AF	US-5,275,977	01-04-1994	Otsubo et al.		
	AG	US-5,271,972	12-21-1993	Kwok et al.		
	AH	US-5,156,881	10-20-1992	Okano et al.		
	ΑI	US-5,089,442	02-18-1992	Olmer		
	AJ	US-5,000,113	03-19-1991	Wang et al.		
	AK	09/400,338	filed: 09-21-1999	Xia et al.		

FOREIGN PATENT DOCUMENTS								
Examiner	Cite	Foreign Patent Document			Name of Patentee or	Pages, Columns, Lines, Where Relevant		
Initials*	No.1	Country Code ³	· Number ⁴	Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T ⁶
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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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(use as many sheets as necessary)

of

Complete if Known

Application Number 10/057,014

Filing Date January 24, 2002

First Named Inventor Krishnaraj, Padmanachan

Art Unit 1765

Examiner Name Unassigned

Attorney Docket Number A5597/T41100

	OTHER PRIOR ART NON PATENT LITERATURE DOCUMENTS					
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т:			
	AL	ABRAHAM, "Reactive Facet Tapering of Plasma Oxide For Multilevel Interconnect Applications," VMIC Conference. pgs. 115-121 (1987).				
	AM	LEE et al., "Dielectric Planarization Techniques For Narrow Pitch Multilevel Interconnects," VMIC Conference, pgs. 85-92 (1987).				
	AN	MUSAKA, "Single Step Gap Filling Technology fo Subhalf Micron Metal Spacings on Plasma Enhanced TEOS/O2 Chemical Vapor Deposition System," International Conference on Solid State Devices and Materials pgs. 510-512, held in Japan, (1993).				
	AO	QIAN et al., "High Density Plasma Deposition and Deep Submicron Gap Fill with Low Dielectric Constant SiOF Films," DUMIC Conference, pgs. 50-56, held in California (1995).				
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